

KG
11365
123

E.2

Meridian Circle
May 24th 1859-
Nov. 3^d 1859

Sold by T. Groom & Co., Stationers, India Building, 82 State St., Boston.

KG 11365,123



KG 11365.123



Lamp East

Date of Observation —

Zone 1. 2°

No. of Stars

Repeating

48 Virgini

No K

Days

Barom. 30.307 Alt. 69.3
Ent. Ther 67.1 Ent. 66.3

Pointer

298° 39'

315° 13'

Line B-A

21 19.0

8.8

B

20 44.1

C

20 9.3

D

19 37.8

A. E

x

37 21.8

7°

39 12.6

G°

39 8.9

H

May 25th *Doni 30.241 15.6*
Ext. hi 5.44 Int.
Flat top 608

Powder 312 20

312 14

A			
B	19.0	(5)	37.0
P	48.8		42.1
D	19.0		34.7
E	56.2		32.9
F	27.3		26.7
G	69.1		16.0
H			

May 26th *Tr.* *Ext.* *Int.* *Mount* *Keck*
Pomita (about) *A.* *B.* *C.* *D.* *E.* *F.* *G.* *H.*
Very moist *poor*
and faint *frank*
etc.

314° 20'	40' 50"	40' 7"	39' 44"	38' 59"	17' 59"	19' 39"	19' 44"
15	46.9	5.3	42.8	57.1	1.1	39.6	46.4
10	49.6	5.4	39.4	53.9	4.9	42.7	51.2
5	46.2	6.0	39.8	56.1	6.0	43.4	50.3
0	44.1	2.4	39.1	54.4	6.0	44.0	49.8
313 <i>Tr.</i> 55 <i>Ext.</i> 70.6 <i>Int.</i> 71.9	45.7	3.1	40.0	55.4	3.3	41.8	48.7
50	49.8	5.6	44.6	58.0	0.3	38.8	46.0
45 <i>Tr.</i> 15.1 <i>Ext.</i> 70.6	47.0	5.7	42.5	58.3	1.4	39.9	47.1
40	43.9	0.2	39.3	54.6	5.0	46.0	51.0
35	44.7	0.2	41.6	55.4	4.8	43.4	51.4
30							
25							
20							
15							
10							
5							
312 0							

May 27th In. Ext. 68.9 Lat. 68.1 Min. Readings.

Pointer (Approx)	A.	B.	C.	D.	E.	F.	G.	H.
------------------	----	----	----	----	----	----	----	----

314° 30'

May 26th

Reynolds 299° 42' 08"

Barom. 30.063 / 76° 8"

Therm.

75.4

Barom 30.100 75.3

Th. 65° 6'

Bradley 1819

Bradley 1851.

Pondus

313° 7' 2"

313 56.0

A	(20)	14.1		54.1	(5)	32.3
B	(20)	27.5	(5)	2.6	(5)	47.1
C	(15)	16.6	(5)	13.3	(5)	34.7
D	(15)	20.6	(5)	19.9	(5)	44.5
E	(40)	32.6	(15)	7.9	(5)	15.1
F	(40)	21.8	(5)	36.9	(5)	51.4
G	(45)	21.9	(5)	49.6	(5)	8.3
H						

859 Judgment Reversed M. West) and Microscopes not noted (G.P.B.) May 26th
 May 30th Trials for Division of a Division by the Circle = Microscopes
 theanometer by 5 A. Each set separate B. C. D.

Bygon 8' 47" S.T.

Therm remain the same

Point 31.17' at top of this set.

In making these trials
 the circle was contaminated
 throughout

43.8	35.0 ✓	32.0	~~11.9~~ 10.1
43.7	35.0 ✓	32.8	10.6
44.0 ⁴⁶	35.2 ✓	33.0	11.0
115	1.25	32.5 / +3 0.13	7
43.1	35.0 ✓	32.0	11.0
43.8	35.1 ✓	33.3	10.7
45.1 ¹²⁰	36.8	33.1	10.8
2.48 19		9 1.73	15 1.59
44.4	35.5	33.5	11.4
43.4	35.3	32.7	9.6
43.4 ¹¹²	35.0	32.2	11.1
1.08 8		9 1.43	
44.0	35.1	32.8	10.1
43.7	35.0	32.7	10.4
43.7 ¹¹⁴	35.7	32.4	12.0
1.08 8		4 0.43	2.4
43.1	35.3	32.9	10.9
44.1	36.4 ✓	32.2	11.0
43.4 ¹⁰⁶	34.1 ✓	32.3	10.8
2.48 8		-1 0.07	7
42.9	35.9	33.4	9.6
43.0	36.2 ✓	33.1	10.2
42.9 ¹³²	35.9	32.4	10.8
1.55 30		14 1.43	2.49
43.5	34.4 ✓	32.8	9.7
44.3	35.4	33.0	10.8
44.0 ^{118 122}	36.2 ✓	31.9	10.6
1.08 10		2 1.33	11
43.8	36.4 ✓	33.2	11.6
43.9	36.9 ✓	32.0	11.0
24		32.9	10.9
43.3 ^{110 72}	35.1	6 1.33	35
1.08 10		32.2	10.4
43.6 ^{110 72}	35.2	32.6 20 1.42	10.604 0.46
1.08 10	35.484		

Light breeze
(Parallax)

E.

S.

G.

H.

3.3 24.9
28.2
26.1
12 15 27.6
1.5 26.8
25.3
26.9
26.8
27.5
27.0
27.3
26.1
26.0
26.2
26.7
27.1
27.5
27.6
26.7
26.6
26.8
25.4
25.4

51.0
50.8
51.3
51.5
53.3
50.9
53.8
51.0
51.0
51.6
51.4
51.1
50.6
51.8
52.9
51.3
52.4
50.3
51.1
53.5
51.6
52.1
52.2
52.6
52.3

26.5
25.1
25.9
26.1
26.3
25.2
26.4
26.0
25.8
26.1
27.1
26.2
26.0
26.6
26.6
26.0
26.0
26.2
26.2
26.0
26.6
26.7
26.0
26.9
26.4

? 49.1
50.9
51.1
50.0
50.3
49.6
51.0
50.0
50.2
50.3
51.1
50.8
50.6
51.8
50.2
51.0
50.9
51.2
50.5
50.6
51.7
49.9
50.0
51.1
51.2

0.36
0.58
0.42
0.46
0.44
0.67
0.33
0.52
0.47

Mar 30 Mar 30.279 ^{163.6} Jan. 55.0

Stargate
Lidant broken? R. Lott

Panite 312° 15'
Micron + 1.60 103

313 10
22.59

A	48.5	54.1
B	40.8	48.9
C	33.1	35.9
D	15.9	23.4
E	33.8	31.2
F	46.0	37.7
G	22.7	14.3
H	49.8	40.0

June 3, 1859

St. Jm. 76.0 = Small Jm. 76.8
 Jm. 72.8

Pointer (about)	A.	B.	C.	D.	E.	F.	G.	H.
312 15 ?	59.0	46.9	45.1	22.1	27.9	31.5	23.7	40.6
298.6 311 45	6.8	45.6	42.9	22.6	30.0	34.7	16.2	41.4
311 15	58.6	45.0	41.7	20.5	31.1	35.7	19.8	42.6
310 45	58.6	43.0	40.6	18.6	33.8	36.2	20.9	43.8
Jm. 68.4								
312 15	3.9	50.0	47.0	24.6	25.3	30.2	11.0	37.2

June 6th v Virginia Barrow Is. 1870 Ext. In 58.7 Int. 60.2
 Cat. 660. Gay joint 1819. Bradley
 No. R.

Powder
 Mi-rom

A good
 C

No. 100

312 20'
 + 14, 96

312 25
 ? joint + 2. 25.4 + 2 1/2 - 65.2

8.2
 6.0
 49.6
 37.1
 20.3
 26.9
 4.1
 22.9

3.1
 56.2
 45.9
 31.0
 24.6
 30.8
 9.6
 39.5

8.3
 0.2
 53.4
 38.6
 17.1
 23.1
 58.6
 27.6

Cat. Lyngby in the Standard Catalogue

Cat. 649.

Cat. 660

Brady 1897
no. 22

Cat. 689.

311 45
+5. 79.2

6.1
55.8
49.8
34.4
22.8
30.7
12.6
36.3

faint and doubtful
312 0

+6 39.0

58.3
53.1
37.2
27.9
30.8
44.1
16.5
17.3

314.5
7.9

13.2
7.6
57.7
46.4
8.7
22.6
54.9
20.0

311 55
-0 89.1

20.3
12.6
1.0
50.8
7.8
16.4
52.2
17.6

June 19th 1937
Brady 1884

Calc 646

Calc 653

Exp 64-6

Calc 677

1937 Brady

3130.5'
- 6.2 +556

311.38
+72880

312.25
+8.876

311.40
+3.764 + 4/5 34.8

310.5

A
B
C
D
E
F
G
H

21.9
14.3
4.4
51.1
6.6
12.6
47.0
17.9

1.4
54.7
43.9
27.2
27.2
31.4
14.9
40.4

1.3
13.4
43.2
24.9
26.8
33.0
8.2
40.7

15.3
4.2
56.7
45.0?
12.6
22.5
17.2
28.4

10.3
1.1
49.1
39.8
14.2
21.6
1.0
29.2

Refn
June 14.

1857 021

666 lat?

Cloudy up to 710
670 lat

font

Double

314 0

+6 17.0 } 12
16.3 } 12
16.0 }
26.3

312 d

22-2 58.0
16.6

51.2

39.8

42.2

17.2

31.5

37.2

18.0

43.4

Inda

58.0

42.5

45.6

21.6

31.1

35.9

17.8

43.2

June 18th 3/10
1889 Pr.

1908 Pr

Cal. 190
No R?

Bradley
Cal. 699
No R.

Impr. by
Cal 709

309° 50'
- 12 93.7

312.0
+ 8^r 13.2

311° 45'
- 12 97.0

311 25
- 26 73

312 25
- 4.6 23.1
19.9

4.0

0.5

14.0

11.8

5.0

51.8

46.0

7.0

58.2

57.7

47.5

45.0

58.6

57.3

53.1

48.8

26.8

40.2

39.4 - 0.8

35.1

25.4

29.1

16.0

14.8

18.4

30.6

32.8

21.1

19.8

25.2

16.7

17.1

2.0

13.3

7.4

42.8

50.2

30.2

34.4 - 4.2

40.9

June 27th

Cat 679

It is deplorably out of focus.

Cat 795

June 27th / 28th Am.

Altered the ^{to} ~~equipment~~ ^{position} of the microscope
that needed it.These are
not good.

311 25

- 3rd 65.8

311 75

- 3rd 87.3Read
with
moving

14.8

0.8

5.0

43.5

10.8

14.2

1.4

10.6

51.9

58.4

35.6

19.8

23.9

7.8

29.1?

1.8

52.6 x not altered

56.0

53.4

21.1

23.3

7.6

38.7

7.6

X 52.7

X 56.2

34.0

X 20.6

24.8

24.3

Read again

not satisfactory

1859 July 10
Lamp West.

El. 15 52 0 Barom 30.0667.68°6

dopmische

Calc 765

Calc 774

315° 40'
+ 0.444

312 0
+ 4 48.7

311 50
+ 5 13.2

A 18.1
B 14.3
C 9.6
D 47.5

7.7
53.4
54.5
35.0

18.0
3.9
4.8
46.2

1859 July 5.

Lat D. 722

Lat. 765

Lat 774

Br. 209

Sun. 100 fms.

312 10
+ 8.246312 0
+ 4.445311 55
+ 13.158311 5
+ 3.474?No Sun. about 0.7
311.518.9
2.4
1.9
47.8-7.5
-6.911.4
55.5
52.7
41.6-0.6
-0.810.8
56.3
52.9
41.611.7
55.2
49.9
40.0

1859 July 5

lat 787

lat 799

lat 806

lat 816?

Right margin
hst

lat. 811

✓ hst
✓
✓311 45
-2.656311 35
-10.81311 20
-3 71.4312 10
-2.138311 30
+0.785?

A
 B
 C
 D

5.9
 50.3
 45.1
 25.9

16.8
 0.0
 53.7
 40.0

17.9
 0.2
 56.3
 47.4

25.0
 9.3
 5.8
 56.2

12.4
 56.4
 51.8
 42.4

1859 July 1

2236 Band

Cat 834

~~Star with a comp~~
Double star

Dec. 22 71

309 35
+ 1.291

23.2

7.7

1.8

50.1

311 40
+ 3.022

20.9

7.7

1.3

51.2

309 50
+ 4.119

8.0

52.4

46.9

36.6

1859
July 6.
Cat. 722

727

No RR

~~No RR~~ 736

Low light

Spec is cat. 742.

Low stars

A few stars very doubtful
and not to be used,
with one signal

to following and north, brighter.

311 25
+ 0.147 :

312 0
- 2.409

311 15
- 2.090

312 10
+ 2.676

312 10
+ 9.38

A 48.2
B 34.8
C 31.4
D 16.4

14.1
1.1
0.0 RR
43.2

11.0
57.8
53.0
39.1

12.5
59.0
55.9
40.5

Brad. 2081

Bradley 2119

Br. 2120

Lat. 78.5

2.

311° 8
+ 3.32771
50.3
47.5
33.5310 50
+ 2.525.6
50.0
46.0
32.0100m.
- 5.28312 5
+ 2.02415.0
1.2
57.9
43.2

one off than
Two Star Cat. 799

8/9 mag

7/8

Ink faded

311 35

- 212.09

Star
- 10.71

A	18.0
B	2.9
C	1.3
D	46.1

1859 July 7th

756

748

Bred 2081

Bred 2097

~~Bred~~311 15
-2.52312 15
+1.77311 0
+3.56310 0
-4.392311 50
+4.213

58.3

41.3

41.6

21.6

4.0

58.0?

51.6

30.5

56.7

40.6

40.5

22.7

57.6

40.1

41.0

21.9

14.7

58.9

1.6

41.8

Brady 2159

Am. 785

Omni 2159

Cal 799

2184 Br

311.5
+ 5.42312.5
+ 2.104316.20
- 1.43311.35
- 2.36312.40
+ 5.64

A

10.2

10.5

9.4

3.9

0.8

B

54.8

54.5

56.1

46.0

47.2

C

54.5

55.9

2.7

48.9

49.0

D

37.1

38.1

39.2

31.0

30.4

806 Car

816 Car

818 Car

824 Car

827 Car

311.25
+ 0.94312.10
- 2.59Idem
+ 4.53.3311.55
+ 0.83.2Idem
+ 6.7257.4
42.3
44.2
24.57.0
50.3
53.3
34.0

7.2

7.2
50.1
51.6
51.0

Cat. 834

Bras. 2264

311 40
+332.2311 5
+ 6.83312 0
+4.56A
B
C
D5.2
50.2
51.6
93.74.6
48.4
50.2
31.52.6
47.6
51.0
30.0

July 9th ^{moving} Microscopes have been made ready to move.
 alt. 748. 2097 Bradley Cat. 774

No R.
 Clouds

312 15
 + 1.454

18.5

58.8

5.3

42.4

310 0
 - 4/5.174

6.0

50.0

52.6

32.0

311 50
 + 4.56

4.3

47.5

54.0

32.2

July 19th Not very good seeing. Hazy - Moonlight.

Dec. 1959

Lat 72° 45' N

Lon 72° 6'

Oct. 742.

311 10
-4.918

313 0
-4.096

312 0
-2.429

311 15
-3.869

312 10
+3.657

A 33.4?
B 11.3?
C 33.4?
D 59.0?

6.3
46.9
56.9
29.7

15.5
54.0
6.7
38.6

18.8
57.6
9.9
42.3

4.6
45.7
58.9
29.6

Brnd. 2097

lat. 774

2129 Brndy

lat. 785

No R

3100
-4.18031150
+4.2973115
+3.3873125
+2.193

6.8

11.0

11.7

8.7

46.5

50.8

51.1

48.4

57.0

5.5

4.4

1.2

29.6

38.1

36.1

31.3

1859 July 18. ~~th~~ Bar 29.935 74.0° Cyl. Tm 67.2
 Condition of my Air - Pretty Bad.
 Bradley 2097 Bar 2129 Cal. 790 Cal. 802 Cal. 806

310 0'
 -4.102

8.3
 50.8
 57.7
 33.6

311 5'
 +1.82

32.4
 13.1
 21.6
 59.4

312 15
 -3.262

14.6
 57.0
 6.4
 44.3

311 50
 +2.504

26.5
 8.8
 18.2
 55.9

311 20
 +5.489

20.5
 5.5
 11.6
 50.5

?

h-822

Br. 2291

312.5
- 5.59

No Sa

309.40
- 3.2313.4
58.5
4.5
42.6

Star very faint.

27.5
11.7
17.1
55.8

1859 July 23^d Catalogue 2

sophistic

+ 16.150 m(60)

+ 16.23 48 Lit

± 16.33 51 (Lit 53)

16.41 7 m(60)

mg.
%

No Declination

311.0

+ 3.09.1

310.0

- 4.09.1

311.30

- 6.634

311.0

+ 1.264

A
B
C
D

16.9

57.4

3.4

42.9

10.0

53.0

58.3

38.0

15.7

58.9

3.1

41.7

9.4

52.7

57.8

39.0

1859 July 25th

Dec. head - The number in parenthesis was taken before the RR, 2d beg. of break.

% + Lat. II 16.59 57 feet 7th + Cab. I 802 + Lat II. — * Lat II.? Cab. I

310 20
-2.785 :

6.3
50.6
52.7
32.9

311 50
3.01

74
53.8
58.9
29.7

310 45
-1.26

14.3
0.3
4.4
45.6

idem.
+ 3.35

eadem.

312 10 (29.6)
-2.54.7

16.3
59.4
4.2
44.5

John 25

Bradley 2264

Br. 2277

Br. 2293

Br. 2312

Br. 2330

311 0
-3.77.3308 25
+6.237315 25
+4.394312 15
+3.44320 40
-7.45311.0 15.7
0.9
3.1
47.73.2
47.3
48.1
31.820.4
5.6
13.0
53.619.7
3.7
8.9
49.733.9
17.4
28.4
6.0

$\beta_{r 1346}$ $3_{10} 25$ $+0.71$

7.4

50.2

51.7

35.6

1859 Aug 9th
Bradley 2200.

Dec. Before Dec. After
New to beat

2236

2254

2277

2293

308 5
+1.70 A.

309 35
+1.77 B.
68.8 A

316 0
-1 20.0 B
15.5 A

308 25
+5 72.4 B
64.0 A

315 25
+4 35.5
28.0

A
B
C
D

12.8
55.4
60.1
42.5

8.3
48.6
56.4
39.8

13.1
58.0
9.6
50.0

25.6
7.7
13.0
57.1

26.6
8.2
23.2
2.8

Aug 9 cont.

2312.

2384

2419

2451

312 15
3 79
3 70316 15
+1 ¹⁰² 98.4 A310 15
-3 45.4 Ab.309 30
43.
33.413.2
54.0
3.8
46.721.5
4.0
17.5
56.117.7
59.9
6.1
50.827.0
78
13.5
58.7

MBy. Bar 30.132, 70.4 }
 6.3 }
 2236
 Aug 15 2218

Ophiuchi

Ophiuchi

2264

2277

2298

17 31	52.9	19.3	6.0	3.5	31.0
	56.7	20.1	9.7	7.0	34.7
	0.1	26.2	12.1	10.3	38.1
	3.7	29.9	16.5	13.7	41.6
	7.2	32.4	20.2	17.4	45.0
	0.12	26.38	12.10	10.38	39.08

29940
 -1 99.5
 98.5

30935
 +1 30
 228

3110
 -3 53.7
 49.8

30825
 +5 02.5
 91.5

31525
 -2 17.
 11.5

52.6	25.6	28.5	16.2	32.6
46.8	7.7	10.3	57.3	15.3
45.8	13.2	16.3	1.6	28.2
38.4	57.1	2.3	49.8	14.3

For Dal.

17 30 28.1
 31 34.3

17 42 26.6
 43 52.3

17 56 36.8
 57 32.1

18 4 14.8
 5 31.4

18 15 48.1
 16 59.5

2312

29.9

33.6

18. 22 37.0

40.3

43.8

36.92

2346

No R

2376

42.8

46.5

18 51 55.8

53.5

56.9

* ~~57~~ 49.90

2419

6.6

10.3

19 8 13.7

17.0

20.5

13.62

2419

53.7

57.3

19 21 0.7

4.1

7.8

0.72

$$\begin{array}{r} 312.15 \\ + 3 \quad 24.2 \\ \hline \end{array}$$

27.3

9.2

17.7

3.7

$$\begin{array}{r} 310.25 \\ + 0 \quad 12.5 \\ \hline \end{array}$$

30.9

14.1

18.5

5.5

$$\begin{array}{r} 308.20 \\ 53.4 \\ 2 \quad 43.3 \\ \hline \end{array}$$

21.8

5.8

67

57.2

$$\begin{array}{r} 310.15 \\ 22.1 \\ - 3 \quad 15.6 \\ \hline \end{array}$$

27.6

10.1

17.7

4.6

$$\begin{array}{r} 309.30 \\ - 1 \quad 95.3 \\ \hline 87.4 \end{array}$$

44.5

25.4

30.5

18.0

18
23 20.618
30 52.818 50 43.1
52 27.619 8 29.2
9 33.319 20 31.8
21 23.6

* Last break of
all.

At End of Zone Bar 30.150 6702
 Est. 57.4

2592

54.4

58.1

34

54.4

55.1

58.5

57.50

307 15
 -1 77.2
 69.9

A

19.5

B

4.1

C

5.9

D

55.8

For Dal.

19 33 54.7
 35 13.2

Doubtful

A
B
C
D

Barom 30.219 682

1859 Aug 16

Bad rainy 24h. Bar. 56.6

2229 Bar.

2271 Bar.

Doubtful

307° 45'
+ 4 99
92.8309° 50'
+ 3 64.3A
B
C
D

13.2

26.9

59.4

11.7

57.0

12.0

44.7

3.1

1859 Sept. 6th

Sept. 6

El. 19' 47" 0"

Bar. 30.349 64.5

Exp. 53.4

El. 20 10 0

El. 2. 27.0

Near the end

Bar. 30.344 60.6

Exp. 49.4

End about El. 22 25 0

Bar. 20 24 16.2

Bar. 20 32 35.6

Bar. 20 44 15.8

13.5

17.0

20.2

24.0

27.5

4 20.54

3 30
11.4
18.4

59.1

29.8

35.0

7.1

20 24 16.2

17.9

21.2

24.4

28.4

316 10
+ 9 77.2

16.5

27.9

29.4

7.3

20 32 35.6

39.2

42.6

46.0

49.7

20 32 42.62
micrometers

25 25
7 47

21.6
47.7

4.7

8.4

12.0

15.8

20 44 (28.40)

306 50
7 63.2

21.6

47.7

53.4

24.2

For bar.

20 0 18.2

20 13 39.8

14 45.6

20

21 46.4

20 43 49.

44 42.

Sept 5

Br. 27.17

20 53 57.4
 54 4.0
 4.4
 7.9
 11.5

20 54 4.44

Br. 27.99

39.9
 43.6
 46.9
 50.4
 54.0

21 1 46.96

Br. 27.53

R int. mthz

91620
 8 77.6
 87.3

Br. 28.4.

54.7
 58.2
 1.8
 5.1
 8.6

21 34 1.68

17.6
 21.1
 24.6
 28.0
 31.7

2 43 24.60

30835
 21.5
 -2 35.1

9.0
 34.7
 39.2
 10.5

30655
 6 7
 +6 46.8

13.8
 42.0
 47.2
 18.4

30615
 -3 39.9
 49.4

2.5
 34.0
 39.6
 9.0

31015
 +3 08.7

1.3
 33.4
 35.9
 10.9

20 53 43
 55 3

21 1 6.5
 2 16.5

21 19 57.

21 33 15.5
 34 28.

21 42 57.2
 43 46.6

Sept 6th continued Dec East.

Br. 2874

a Aquarii

y Aquarii

45.3

35.6

49.1

39.0

52.3

42.3

55.9

45.7

59.3

49.3

22 1 52.38 22 17. 42.34

306 15

313 15

314 20

4^h 40^m 44^s }
46^s }
Apr. 5 int.

-1 29.6
36.5

-2 06^h 12^m 12^s } 206 18
14^s }

5.3

49.7

54.5

34.2

21.4

25.3

39.5

24.9

27.8

10.7

57.2

3.6

13' 21 55 31.6

22 1 12.6

" 56 2.4

2 9.2

" 56 45.

22 16 15 .06

52 12.2

17 21 17.

18 1 20.6

18 25 18.

Left midom. read in
5 intervals from East
line

Note here the micrometer won't measure the required distance
[av. / 3152 /] [av. / 3152 /]

Attempted to measure the difference of declination between Caromy to 3152 and 3163
25'9.

40.2
46.
47.5
- 25 51.3

Transit

1859 Apr 7
 Carrington 1707. S.P.
 For Inclination of wire

Right Ascension - Mean
 24 10^h 10.5 15.1 12.8
 37.4 40.3 38.85
 20 0.4 4.5 20 2.65
 25.6 29.2 27.4
 50.9 54.9 52.9
 21 20 2.92

21 11 1.0 27.0
 12 4.0 12.0
 18. 0.4
 13 20. 95.4
 54 88.8

D.B.D

14 36.4 80.4
 15 11.4 77.

Fake alarm

15 26.0 68.5
 16 22.6 63.

D.B.

17 26.7 Complicated signal 58.4
 18 51.7 60.4
 38.4 56.0
 58.3 56.0

Carrington's method — Right Ascension
 B.

21 25.0 55.

22 3.0 58.

52.0 60.

23 13.2 56.

38.6 63.

D.B.D.

24 8.7 69

31.0 68.5

25 1.6 68.2

1859 Sept. 8th N. East

Declination

(Not visible)

Barom. 30.20 5.3

Apr.

54.5

B. Aquarii

E. Pegasi

2875 Bradley.

2. Aquarii

2. Aquarii

	25.2		32.3		9.1		49.4		39.4
	28.7		35.8		12.7		53.7		43.2
	32.0		39.4		16.0		56.5		46.5
	35.2		42.6		19.8		59.6		49.9
21 27	39.1	2	46.3		22.9		62.5		53.5
21 27	32.04	21 40	39.28	21 57	16.00	22 1	56.42	22 17	46.50

$$\begin{array}{r} 318^{\circ} 30' \\ + 6.72 \\ \hline 325 \end{array}$$

$$\begin{array}{r} 303^{\circ} 0' \\ - 3.82 \\ \hline 299 \end{array}$$

$$\begin{array}{r} 312^{\circ} 20' \\ + 1.21 \\ \hline 313 \end{array}$$

$$\begin{array}{r} 313^{\circ} 15' \\ - 1.01 \\ \hline 312 \end{array}$$

$$\begin{array}{r} 314^{\circ} 20' \\ - 1.82 \\ \hline 312 \end{array}$$

K	18.6	3.8	6.2	58.6	5.0
G	36.3	36.1	36.3	29.4	33.0
F	45.5	43.8	46.0	35.2	38.8
E	49.5	37.8	40.1	32.6	36.1

2

It was found that
the circles moves after
they were read off, which
was before the observation.

B. 21 27 23.4
D. 27 49.8

21 39 51.5
41 17

This method is not to be
used hereafter; it may
have been before in 1st
instance only.

22 0 54.7
2 26.6

22 16 57
18 11.4

y Aquarii

35.4

48.2

46.4

44.9

53.5

22 78 46.48

22 31

23.6

27.0

30.6

34.0

37.7

30.56

313° 51'

80.7	277	87.0
85.1	285	86.1
88.0	25.9	86.2
		87.4

52.6

23.4

29.3

27.4

22 30 31.4

31 0.8

38 48.3

1859.9.16

Y. Again

Bar. 30.328 67.6
Th. 54.5
Humidity good.

1 Ric.

3 Ric.

A Ric.

B Ric.

41.4

5.7

13.2

46.5

10.4

44.9

5.3

46.7

50.2

14.0

48.4

12.7

50.2

53.5

17.4

51.9

16.0

53.6

57.1

20.9

55.5

19.7

~~58~~ 57.2

0.7

21.5

22 17 48.42

22.51

25.36

22

56

50.18

23 4

53.60

22

13

17.44

314 20

- 2 09
17.5

311 55

- 2 89
29.2

312 50

+ 1 59

310 50

- 6 79
86

309 45

+ 1 63
82

56.7

48.8

49.6

51.8

54.0

20.1

21.9

21.7

23.6

25.6

29.6

25.4

25.0

27.3

29.2

27.4

20.9

22.5

22.0

24.0

22 17 0.6

18 8.9

22 50 11.8

51 29.5

57 13.9

23 4 36.2

5 28.5

23 18 9.3

58.2

Cloudy.
 1 Picini 24 Picini

10.11.1921

2.7 10.3

6.0 13.8

9.6 17.2

13.1 20.6

2 16.8 24.0

23 28 9.68 22 36 17.4

314 10
 + 6 11.1
 15.

311 15
 6.2
 - 0 64.4

316 20

55.4

44.0

27.5

17.2

28.1

20.9

25.1

14.9

23 27 40.8
 28 28.3

23 37 55.2
 38 33.1

1859 Sept. 12.

Br. 2688

Br. 2717

Battery out of order
 but wire and

306 45
 + 2 7.5
 10.5 time wrong.

308 30
 + 1 7.8

307 35
 + 2 73.8
 89.3

306 0
 40 ~~44~~ 2 8.5 pr. h.
 + 5 44

56.0

28.2

31.8

20.7

45.8

22.1

22.7

11.9

38.2

13.4

16.2

5.6

59.6

32.1

35.0

23.5

1859 Apr. 17. *Wm. East*

1899 Bz	2419	δ Aquila	μ Aquila	6 Aquila
19 1 11.2	19 10 16.0	i 3.4	57.0	54.1
2. 10.2	19.7	6.9	55.5	57.7
18.2	22.0	10.3	59.1	1.1
21.4	26.6	13.7	2.4	4.4
25.2	30.1	17.3	6.1	8.1
	19 10 23.08	19 22 10.32	19 30 59.02	19 36 1.08
316 30	310 10	309 25	305 10	307 20
+ 82	- 4.64	17 83.3	- 1 52	- 1 69.7
+ 55.8	- 4.73	- 23 89.7	- 1 57	
21 52.3	38.2	28.6	60.7	6.2
6 26.1	8.8	58.0	29.5	34.6
7 33.3	20.0	9.2	39.6	44.7
9 2.6	43.3	32.0	2.0	8.5

19 0 1.7	19 9 35.5	19 21 53.1	19 30 25.3
1 37.2	11 3.1	22 31.8	31 17.2
			19 36 20.0

21 Aprilae

28.3 25.2

32.0 28.3

35.3 32.0

38.7 35.3

42.5 38.7

19 42 33.6

305.0

+2 3.0
10.9

53.1

22.5

33.7

55.7

7 Aprilae

57.6

1.1

4.6

8.0

11.7

19 49 4.60

311.40

+7 4.9
49.9

0.0

31.2

40.4

6.6

62 Aprilae

26.7

50.1

53.7

57.1

0.7

20 0 53.66

313 20

-3 9.3

46.9

17.5

26.9

54.5

64 Aprilae

No R.

313 20

-1 22.3

47.2

15.9

26.3

53.8

69 Aprilae

56.2

0.0

3.3

6.7

10.4

20 26 3.32

315 40

+6 0.4

60.7

30.1

37.6

6.0

19 41 58.0

42 56.4

19 48 44.6

49 37.0

20 0 33.4

24

20 5 34.0

20 26 42.5

1859 Apr. 19.

P. Aquilae

2 Spiker.

46.

(3) Aquarii

42.9

55.9

21.6

49.0

46.5

59.4

25.1

52.6

50.0

2.9

28.6

56.1

53.3

6.4

31.9

59.5

57.0

10.0

35.6

3.2

20 34 49.94

20 59 2.92

21 17 28.58

21 27 54.18

313 50

-2 16.8
20.9

305 40

84.4
+4 91.2

317 25

65.3
+1 71.4

318 25

-3 23.5
31.0

N

59.7

49.4

58.0

55.3

G

28.8

19.3

26.6

19.5

T

36.3

27.4

30.2

23.2

S

5.2

51.9

2.7

55.9

20 34 15.4

20 58 44.6

21 16 54.8

21 27 1.8

35 7.2

59 30.8

17 49.4

28 16.8

1859 Sept. 23.

Comparison of Microscopes

	H.	G.	F.	E.
320° 0'	55.1	28.6	19.3	31.8
315 -	46.1	29.9	17.2	
310 -	53.2	27.1	6.1	
305	43.0	27.2	15.2	
314 0	42.3	30.0	12.3	
319 0	50.8	30.2	20.6	
320 0	43.7	27.7	10.0	
	63.5	22.7	29.8	22.7
321 0	50.9	22.0	15.6	25.3

1859 Sept. 24. Comparison of microscopes

La Souster Rev.	H.	W.	F.	E.
390	42.3	3.2	11.1	22.7
10	41.0		8.4	21.6
20	39.2		6.6	20.3
30	44.9		11.8	24.6
40				
50				
60				
70	41.6	29.5	12.1	14.5
80	44.5	27.6	16.9	16.3
90	44.4	28.3	16.1	15.9
100	41.3	25.4	15.9	15.7
110	39.1	24.8	14.3	31.6
120	37.2	25.2	12.0	
130	39.0	25.2	13.8	
140	39.6	24.4	15.2	
150	39.2	27.7	11.5	
160	40.2	24.6	15.6	
170				
180	37.6	26.6	11.0	
190	37.5		11.1	
200				
210	39.0	27.0	12.0	
220	40.1	26.5	13.6	
230	40.0	24.9	15.1	
240	39.1	24.2	14.4	
250				
260	39.6	26.6	13.0	
270				
280	38.1	26.0	12.1	
290	41.2	26.4	14.8	
300	41.5	25.7	15.8	
310	41.5	25.0	16.5	
320				
330	40.7	26.6	14.1	
340	39.6	25.2	14.4	

309 30	48.4	(27.2)	2.2
309 15	33.1	(26.1)	7.0
309 0	36.6	(23.7)	12.9
309 45	53.1	26.1	27.0

Mr. Hy. 29.974
Ext. Mr.

68.05

~~26.19 52.0~~

55.7

26.19 52.0

1859 Apr. 24.

2 April

Bk. 1+

25.6.26. Bradley

28.7.6. Brad.

26.24 Br.

26.49 Br.

44.4

48.5

52.0

55.4

59.0

In R.

?

53.0

56.5

0.0

3.3

53.3

56.8

0.2

3.6

7.3

14.3

18.0

21.3

26.8

28.5

19 47 51.94

20 7

20 25 0.24 20 33 21.38

303 45

+ 1 51.5
56.0

313 20

+ 3 10.2

313 30

+ 1 53.4

316 5

+ 1 38.9
48.0

315 20

+ 3 91.3
99.3

H
G
4
2

50.8

24.0

40.2

0.5

36.9

13.5

26.7

52.4

53.5

28.8

42.2

5.9

52.0

25.3

26.5

3.9

46.7

21.8

31.4

59.6

127 22.5
19 48 7.4

20 1 38.4

20 8 22.3

20 24 8.8
25 33.2

20 32 57.1
33 52.0

U. 2055 of 13.7 Cloud.

Q. 21 21 0
Bar. 29.967 59.5

26th Br.	27th	27th	27th Br.	Ext. Thr
9.3	25.6	21.2	39.7	
12.5	29.3	24.9	43.3	
16.2	32.7	28.4		
19.7	36.1	31.7	50.2	
23.3	39.8	35.4	53.9	
20 44 16.28	21 4 32.70	21 7 28.32	21 14	

317° 50'
14.1
+ 6 22.

307 20
+ 2 11

302 45
87.5
+ 6 94

317° 28'
8
+ 6 80.0

57.1	53.3	32.3	47.4
28.2	28.0	8.6	22.0
40.3	42.4	22.2	30.2
7.4	3.7	42.7	59.4

20 43 25.3
44 37.5
1

21 1 58.8

21 6 59.3
7 49.2

21 15 20.6

Right Ascensions somewhat doubtful.

Sp. Grav. making bad work. Mercury in back.

312° 15' 3" M.L.

Br. 2629.

Br. 2649

Br. 2684

~~Br. 2711~~

20 24 59.0

8 2.7

6.1

5.4

13.0

20 25 6.04

hr Ar

15.0

30.9

18.6

34.0

22.1

37.5

25.6

40.9

29.1

44.5

20 26 22.08 26 10 37.44

316 5
+ 86
88315 20
+ 4 8.9317 50
+ 4 29.7
36.0308 00
0 92
- 01.8307 20
+ 2 13.0

N 36.7
G 11.5
F 22.1
E 49.3

43.0

53.1

38.0

52.8

18.4

24.8

12.7

27.5

27.9

34.7

26.1

39.9

55.6

3.5

49.2

2.4

20 20 42.6
25 25.6

20 33 33.6

20 43 55.3

44 46.1

~~21 1 54.3~~
This R. str belongs
in next column.

~~20 05 26.5~~
The star in this
column is

58.8

2.?

5.9

9.2

12.9

20 56 (200)
For declination
20 55 36.4

Reading =
 lamp went out "

Mercury replaced by same from Currier and Simpson.

Doubtful/Cloud

Apr. 28 22	Br. 2870	Br. 2887	Br. 2914
4.7	55.0	46.5	28.9
8.3	58.8	50.1	32.7
11.9	2.2	53.4	36.0
15.1	5.4	57.1	39.1
18.8	9.2	0.5	43.0
21 28 11.76	21 39 21.2	21 54 53.52	22 1 35.94

31830
 +6 41 49.4

31140
 +6 16.9 22.5

31820
 -1 25.5 33.

31350
 -0 87

30645
 -0 54.6 56.2

45.9	55.5	55.6	54.4	44.2
15.4	31.7	26.9	28.3	19.4
24.1	42.6	35.2	39.3	34.3
55.3	8.5	6.9	7.9	54.8

21 27 41.3	21 38 34.8	21 54 15.0	22 1 3.4	22 6 42.3
28 41.8	?	55 21.2		7 32.4

Sept. 27th 1859

Polaris

Very hazy

69.

64.5

61.2

62.4

57.9

Bad

Sept. 27

7

3. Aquilae

2576 Brw.

2629 Br

2649 Br

No R

4.2

7.9

11.2

14.6

18.3

20 2 11.28

No R

59.0

2.4

6.1

9.3

13.1

20 25 5.98

20 33 27.22

20.2

23.7

27.2

30.7

34.3

306 10

-4 25.7

313 20

-2 54.7

313 30

0.12

316 5

+1 36.41

315 20

+4 15.1 22.7

H 48.0

47.1

37.3

54.6

36.9

G 24.3

24.9

11.6

79.1

14.5

F 33.6

32.1

19.1

36.9

20.3

E 56.7

1.3

47.0

6.4

51.4

19 54 1.0

20 2 32.5

20 9 24.3

20 24 43.3

25 30.0

20 33 4.0

44.5

312.15 Sept 27

Br 2717

2.1
40.8 6.2
44.4 7.9
47.8 11.2
51.1 14.0
54.8 18.3

15 Gemini
No R.

2 Gemini
No R.

3 Aquarii

5.5
9.2
12.6
16.1
19.6

3 Pyani

39.2
43.0
46.4
49.8
53.5

20 43 47.78 11.28

21 28 12.60 21 34 46.38

315 20.
+ 8 43.2

308 30
0 9.6

307 40
8 04

318 30
+ 6.34

306 15
- 2.52

Pl
4
5

38.6
15.1
20.9
51.6

7.0
45.4
53.4
19.9

59.3
36.5
45.0
10.6

51.9
23.6
28.5
1.0

52.4
29.0
28.6
3.2

20 14 19.5

20 50 42.3

21 13 18.2

21 28 51.5

21 35 44.8

Sept. 27

Barman 30.035 76.5
Sept. 27 63.3

At Sea Ex. 63.1

2849 Br.

2870 Br

2887 Br

2914 Br

+ Agnais

2.3

47.2

29.7

27

20.0

5.8

50.8

33.5

6.2

23.4

9.3

54.3

36.8

9.6

27.0

12.7

57.7

40.1

13.0

30.3

16.3

1.3

43.7

16.6

33.9

21 44 9.28

21 54 54.26

22 1 36.76

22 7 9.62

22 17 26.92

310 15

318 15

313 50

306 45

314 20

+ 3 2.8
6.0- 10 18.9
23.

- 1 8.5

- 0.5

- 1 97
203

57.3

52.1

48.6

48.0

51.1

30.2

23.9

26.4

25.2

28.0

39.1

29.7

33.4

34.8

35.6

4.5

2.6

2.5

57.8

3.4

21 43 54.8
44 31.821 53 42.7
55 26.722 1 10.2
1 54.7

22 7 26.3

22 16 53.0
17 59.4

1859 Apr 28 El. 20 27 0

Barom

Break circuit in dark acting badly.

H. at 988

H. at 998?

$$\begin{array}{r} 311915 \\ +1 \quad 74.6 \\ \hline 76.5 \end{array}$$

$$\begin{array}{r} 31145 \\ +1 \quad 92 \\ \hline 100.4 \end{array}$$

H	57.3	38.6
G	35.2	17.5
F	44.8	27.0
f	10.1	53.9

Rather brighter than last x

M. 29
Syrus

H 934 ?

Barad. 2562

Syrus

Est. 199.9
H. 973

24.2

R. R.

6.0

0.3

32.0

27.7

9.4

4.1

34.5

31.1

12.6

7.7

39.0

34.5

16.2

10.9

42.4

38.0

20.1

14.6

45.8

19 34 31.10

20 2 12.92

20 9 7.52

20 18 38.94

313 50
38
- 2 45311 50
- 1 379313 20
- 2 79.5
84.8313 30
63.
+ 1 70.311 20
85.9
+ 3 89.H
G
F
E

50.2

49.9

46.6

47.9

53.2

23.8

24.8

21.2

23.4

26.5

33.7

36.1

33.5

33.8

34.8

2.3

2.6

59.9

1.4

3.3

19 33 59.8
34.49.4

19 43 26.8

20 1 51.4
2 33.520 8 49.8
9 45.620 18 14.7
18 55.3

Hard to observe. Pendulum has been a little disturbed.
 Cross the to ~~hand~~ from which it was ~~coming~~ ^{beginning} 48.9.

St. 977	St. 979.	Pr. 2684	St. 73 rd group	St. 1003.
		47.7	9.6	36.3
		57.3	13.2	40.1
		55.0	16.4	43.7
		58.3	19.9	47.0
		2.0	23.5	50.5
		20 44 54.86	16.52	43.52

311 50 - 0 66.6 74	311 25 - 5 48.2 53.3	306 45 - 2 24 32.1	311 45 + 2 21.3 96.9	311 40 0 56.6 4.0
52.2	50.0	41.2	39.4	54.9
25.0	25.0	16.1	16.2	32.3
36.3	35.7	28.0	27.0	42.6
3.0	2.9	52.3	53.0	9.7

20 44 35.0	20 57 52.6	21 4 21.5
45 14.2	58 32.1	5 10.7

1859 ph. 29.

H. lat 1010.

H. 1018.

H. 1024.

H. 106.
47.06

H. 103

H. 1039

34.3

14.2

24

40.6

27.4

42.0

18.0

11.7

44.2

30.9

45.5

21.2

15.1

47.5

34.3

48.7

24.6

18.0

50.9

37.7

52.4

28.5

22.1

54.3

41.4

29 13

45.38

24

26

21.30

24

30

14.94

24

43

47.50

24

51

34.34

4110

311 40

- 1 10.3

17.0

311 45

- 0 87.3

90.3

311 50

+ 4 11.7

16.5

311 5

3 18.3

22.0

311 40

+ 1 54.5

59.5

55.4

42.7

41.5

41.0

44.3

31.8

19.5

16.0

16.0

20.7

42.6

29.4

26.0

28.0

32.0

9.1

56.5

52.9

54.5

57.8

24 13 21.2

14 20.5

24 22 56.5

23 40.6

24 29 54.0

30 36.4

24 43 20.6

44 10.1

24 51 9.7

52 5.2

Indicates than catalogue
for 9th

Proby 28.75 α *quaris*
 51.7 31.4
 54.6 35.3
 58.4 38.6
 1.6 41.9
 5.3 45.4
 21 57 58.32 22 2 38.52

312 20 313 15
 +1 21.58 -0 26
 23.5 28

38.3 52.3
 13.6 28.0
 24.8 38.4
 52.5 5.8

24 57 32.6 22 2 17.3
 58 15.4 57.4

1859 M. 30.

Doubt

968

974

B. Aquilae

~~1859 M. 30~~

2562 M

M. 961

M. 973

M. 977

22.9

7.2

29.6

33.1

24.7

26.3

10.8

27.2

36.7

28.1

29.9

14.2

30.5

40.1

31.5

33.4

17.6

33.8

43.6

* (34.7)

37.0

21.2

37.4

47.0

38.6

19 48 29.90

19 57 14.20

20 05 00.50

20 13 40.10

37.

✓ 306 10
✓ - 4 15.0
19.3313 20
2 98.3
3 4.5311 50
+ 3 83 mean of 3312 03
+ 2 05.311 50
- 0 82.5
92.M 50.5
G 23.4
L 36.3
F 59.741.0
15.4
30.1
54.048.8
22.5
37.3
0.944.6
18.9
34.0
56.645.1
19.2
33.2
57.419 48 6.0
48 46.419 56 50.0
57 32.020 5 3.4
6 4.820 13 8.2
14 0.020 21 12.3
21 56.0

979

983 = 18.3261

991

Circ 996

Al. 981	Ph. 984	Al. 996	Al. 998	Pl. 1003
5.1	19.2	52.8	10.9	38.0
8.6	52.8	58.3	14.5	41.6
12.3	56.3	59.7	18.0	45.1
15.4	59.7	7.1	21.4	48.5
19.1	7.0	6.9	25.0	52.2
20 31 12.10	20 40 56.20	20 53 59.76	20 54 17.96	21 0 45.08

311 45

+ 2 52.7

306 45

- 2 27.3

311 45

- 2 54.2

2000

+ 2 82

311 40

- 0 53.0

42.8

47.5

47.5

55.7

41.3

44.8

50.2

49.6

47.3

22.9

36.7

0.6

40.8

14.6

29.5

52.6

Last break of full

20 20 49.0
31 32.9

20 40 3.6
41 13.7

20 53 25.8
54 43.0

20 55 25.0

21 0 20.6
1 7.7

Est. Inc. 48.7

8.9 mg.

Alt. 1010	Alt. 1018	Alt. 1024	Alt. 1029	Alt. 1031
Circuit at fault	15.8	9.4	55.7	42.0
	19.3	12.8	59.5	45.6
	22.9	16.3		49.0
50.2	26.2	19.6	6.1	52.4
53.8	29.8	23.3	10.0	56.0
21 27 46	21 19 22.80	21 26 10.32	21 34	21 39 49.00

311 40	311 45	311 50	311 55	312 5
-1 63.6	-1 0.7	+5 96.5	-0 82.6	+3 12.5
		4 04.2	88.0	17.0
39.1	37.1	44.0	44.0	42.2
13.4	11.2	20.1	18.2	18.8
27.7	26.2	32.0	3.9	32.5
52.6	51.0	57.5	57.4	57.7

21 9 22.7	21 18 56.0	21 25 58.0	21 33 43.7	21 39 26.0
10 12.2	21 42.2	26 48.0	34 22.5	40 14.8

— Double that owing to the faintness of the object, the two mid-measures
(or other reason)
— over taken the one — the other —

Mr. 1039 ^{Mr. 2875} of Aquarii

28.9

30.7

? 32.4

31.2

36.0

36.8

? 39.2

40.2

42.7

43.6

21 47 35.82

21 58 36.92

311 40

313 15

34.5

4.6

41.5

- 1 11.1

50.0

49.6

27.0

24.7

39.2

38.1

5.9

3.3

21 47 10.0

21 58 5.2

47 56.8

21 59 3.0

Alt. 2020 0 Brown 30.057 61.97
Therm. byt. 53.6

1859 Oct. 3.

Nasy print

Br. 2667

2688

W 998

Bl 1007

7010.

14.5
18.2
21.5
24.8
28.3

52.2
55.9
59.4
2.8
6.3

13.9
17.6
21.1
24.4
28.1

44.0
46.7
48.2
51.6
55.3

46.6
50.1
53.3
56.9

20 32 24.46

20 40 59.32

20 54 21.02

21 0 48.16

312 15
-2 37.2
39.5

306 45
-2 12.2
18.5

311 45 (46)
+2 10
13

311 40
-0 45
50

311 45
+8 76
78.5

H 27.0
C 2.2
F 14.8
E 40.3

45.3
19.7
32.2
55.2

10.0
17.8
59.3
24.9

42.0
18.0
30.0
55.3

44.3 }
21.7
31.7
57.6

20 32 3.3
32 42.4

20 40 36.2
41 18.0

20 54 9.8
55.5

21 0 29.4
1 11.0

21 9 37.8
10 24.3

1015	1018	1024	1029	1030
R.R.	18.8	12.4	59.1	2.3
	22.3	16.0	2.5	6.0
	26.0	19.5	4.8	9.2
	29.4	23.0	9.3	12.7
	33.0	26.4	13.1	16.3
	21 19 25.50	21 26 19.46	21 34 5.96	21 35 5.30
311 30 + 1 53.7	311 45 - 1 17.5	311 45 - 5 10.0 ? (5.1)	311 35 - 0 42 93.6	311 35 - 3.44
36.7	36.8	34.4	See following	1 40.8
12.0	11.6	11.2		17.3
25.6	23.9	23.4		29.3
50.9	50.5	49.2		54.5
21 15 39.4	20 20 10.4	21 25 58.7 26 43.7	21 33 45.4 21 34 25.7	35 31.0

1059 belows faint

1059 belows faint

1031

1039

Br. 2875

L Aquarii

1055

45.0

48.6 No R.

52.2

55.5

59.1

21 39 52.08

29.2

32.2

36.1

22 11

312 5

+3 33.0?

311 40

+1 96.2

312 20

+1 86.2
90.

313 15

-1 7.1 (200 sec) (5)

312 5

+1 47.3

U

38.1

32.0

35.5

50.4

25.6

G

14.9

8.6

13.0

27.1

2.9

f

27.3

20.8

24.0

39.2

12.4

e

52.0

42.0

50.0

5.4

39.8

24 40 38.6

21 48 1.6

22 12 26.0

Phys. for long being

1059	9 Amari	1068	~~1078~~ ??
8.2	16.3	49.5	47.4
11.7	16.0	53.2	51.0
15.3	17.5	56.7	54.4
18.6	21.0	6.0	58.0
22.2	24.6	3.5	0
22 18 15.20	22 28 17.48	22 35 56.58	

311 35
- 1 19.4
25.0

313 5
- 1 88
94.2

311 45
- 2 94.4
98.5

311 10
+ 2 47.0
52.8

48.4
25.0
36.8
2.8

42.5
17.6
29.1
56.6

42.7
19.0
31.4
56.8

52.8
54.5
27.0
42.1
4.2

22 17 56.5
18 31.4

22 27 53.5
28 42.9

22 35 39.6
36 18.3

22 46 41.4
47 23.6

July 20 31 0 Bar 30.035 64.2

1859 Jul. 7 M. West 53.7

El. 21 4' 0"

30.031 62.9
L m f
El 21 31.0
244 2 530

Gr. 2648

1 Synchro = 2717

α Synchro

β Synchro

52.9

4.9

11.7

58.0

8.6

15.1

59.3

11.9

18.5

2.9

15.2

22.0

6.5

?

25.7

20 40 59.62 20

21 23 10.60

306 50

308 35

307 40

318 30

+ 0 75.9

+ 1 05.4

+ 0 59.4

- 2 12.4

11.4

15.6

14.6

34.1

0.8

3.0

3.2

23.2

(34.0) 46.9

49.5

48.5

16.8

53.6

55.3

55.6

10.2

20 41 28.3

21 23 2.0
23 35.8

21.20 50
21.20

Rendin 28.57 Sub. Th 39.3

45.
D
39.5
38.6

1W
2W
35.3
3W
4W

35.5
5W
35.0

35.9
37.0

BDB

40.4

40.6

42.9

43.4

46

D.

51.4

54.4

60.1

BDB 64

69.9

75.6

80.5

87.3

97.7

Depth 105.6

17.0

26.2

BDB 26.4

28.0

65.8

74.0

Pen find

1859 oct 10. K. 22 8 0 Bm. 30.144 $60^{\circ} 1$
 Ext. In 35.8

K Pinnin

K Pinnin

O Pinnin

O Pinnin

1st/2nd

34 50
 -8 12.5
 13.4

34 25
 +2 88.5
 92.2

306 20
 + 2 48.3? 51.7
 49.1

315 40
 + 4 04

304 55
 -3 92.6
 83.4

A 21.6
 B 15.4
 C 58.7
 D 12.4

23.8
 20.0
 59.0
 13.6

15.5
 10.4
 47.8
 2.6

37.7 17.5
 36.1 15.9
 19.6 50.0
 28.5 5.7

Moore and J. J. S. S.

Very Luminous

1859 Oct. 12th H. West. Barom 30.311 Alt. 59.1

El. 20.54

Microscope illuminated with fixed light for the 1st time

1 *Microscopium* *Vignalei*

B. Equulei

and also a, etc.

No R.

22.5 31.7

302.50

306.15

+ 0 31 ?
81.3

+ 17 35
31

50.7

58.6

49.1

55.1

29.4

36.9

38.7

45.3

859. Oct. 15th~~1859~~ Maria Minoris $\ell. 18150$ Est. Inc. 45.5°

1859 Oct 15th El. 19 28.0 Brown 30.015 58.8 AB
 lat No. 43.6 El. 20.190

Smith as

by Equilae

A Equilae

1 Equilae

last time wrong

313 30
 + 4 64

313 40
 + 5 55.3

316 0

319.46

308 25 / 35
 - 6 31.3

A 23.0
 B 22.3
 C 12.0
 D 12.0

24.6
 26.1
 15.0
 15.0

Micro

7.3
 1.2
 46.6
 48.7

All these calculations are to be rejected,
 taken in the wrong part of the field of
 Microscopes.

El. 2160 Est hr 40.8

4 Hab 1003

1010

1021

1031

$$\begin{array}{r} 311 \ 35/45 \\ - 7 \ 21.2 \\ \hline 62 \end{array}$$

6.1
0.0
48.4
51.4

$$\begin{array}{r} 311 \ 35 \\ - 7 \ 62 \\ \hline 49 \end{array}$$

6.6
59.8
48.2
52.4

$$\begin{array}{r} 311 - \\ - 8 \ 68.6 \\ \hline \end{array}$$

16.4
11.2
58.7
1.8

$$\begin{array}{r} 307 \ 10/20 \\ + 8 \ 2.2 \\ \hline \end{array}$$

14.3
9.4
55.2
58.3

$$\begin{array}{r} 312 \ 0 \\ - 3 \ 67.5 \\ \hline 61.3 \end{array}$$

15.5
9.6
57.1
59.6

fruit
10m2

Von fruit
10m2?

W. J. J. J.

2233 0
Ext 16 39.

312 15
- 5 15.5
- 5 04.7

312 0
+ 5 11.6
+ 5 9.1

311 35
+ 3 27
+ 3 18.7

311 20
- 5 70.6

16.4

12.5

60.8

62.0

18.2

12.6

0.9

3.5

16.8

10.8

0.0

2.3

14.3

7.8

56.4

59.4

1859 Nov. 2^d El. 21 28 0 Baum. 30.637 59.2 Est. Tw. 41.7
 hr. 1' 54" of 40.1 H.L.

312 5
 - 3.03.2

40.1
 38.2
 53.7
 55.3

1859 Nov 3^d 20 30 0

Bar 30.449

16.5

very faint

Alt 37.2

Pretty bright
Mag. 3.1 then 8.9

988

19 miles

1004

1006

44.9

14.9

21

3

25.1

21

5

8.0

48.1

14.6

11.6

51.5

21.9

32.0

15.0

55.0

25.3

35.4

18.4

58.5

29.1

39.2

21.9

20 48 51.60

20 42 21.92

21 5 29.98

$$\begin{array}{r} 311 \ 10 \\ - 6 \ 86.2 \\ \hline 72.3 \end{array}$$

$$\begin{array}{r} 308 \ 30 \\ + 3 \ 26 \\ \hline 179 \end{array}$$

$$\begin{array}{r} 311 \ 10 \\ + 0.88 \\ \hline \end{array}$$

$$\begin{array}{r} 311 \ 10 \\ + 0 \ 15.5 \\ \hline 10.2 \end{array}$$

41.4

34.3

see following

40.8

40.6

34.0

40.3

54.9

43.0

54.8

57.0

48.7

58.0

20 41 28.3

20 42 7.0

21 4

21 4 57.5

42 48.1

58.0

21 4 7.4

5 52.8

21^h 47^m moon.

1859 Nov 3

Altitude mirror of mirror C.

1016.

49.7

53.5

56.8

0.4

4.0

21 16 56.88

1029

8.9

12.7

16.1

19.3

23.3

21 34 16.06

1030.

No. R.

1042.

54.0

57.6

1.1

4.4

8.2

21 51 1.06 22 3 22.10

2912 Br.

15.0

18.5

22.2

25.5

29.1

311 10

2 23 21.5

40.6

41.2

55.8

57.0

311 35

+ 2 92.2
78.1

See following

311 35

+ 0 33.4

44.3

43.4 (60.9)

59.0

51.1

312 20

+ 4 05.1
3 98.4

47.2

45.8

2.0

2.0

316 50

+ 2 67.5
61.2

53.6

51.8

7.4

12.0

21 16 38.3

17 21.6

21 33 49.2

35 31.2

21 36 20.4

21 50 26.4

51 23.4.2

46.9 5

22 2 39.

Time by st.

π Aquarii

1059

10646

1077

1086

γ Pictoris

0	18.2	598	54.0	18.4	5.4
5	22.0	3.6	5.77	22.3	9.3
2	25.3	7.1	1.2	25.8	12.5
5	29.0	12.5	4.8	29.2	16.0
1	32.5	13.9	6.6	33.1	19.5
10	22 146 25.40	22 36 6.98	22 47 1.26	22 58 25.76	23 10 12.54

311 35
+2 37.30.9

311 45
+0 90.5
80.2

311 10
+4 4.9
3 96.0

311 40
-1 15.3
10.3

309 40
-5 62.9
55.7

6	45.4	42.6	42.9	43.3	37.4
8	42.9	40.3	40.3	41.9	54.0
4	4.4	58.2	56.6	60.2	51.0
0	4.0	59.4	60.6	64.1	53.0

22 18 15.7
19 13.0

22 35 23.4
36 36.2

22 46 30.8
47 50.8

22 58 6.6
48.4

23 9 31.3
11 10.4

1859 Nov 8, Band
 Exp. No 324, 30.502 64.4
 26.23 28.0

10941.

56.6

0.1

3.5

6.9

10.3

23 20 3.54

311 40

+1 26.1
 24.1

41.9

39.8

60.4

59.8

23 20 24.4

21 1.0

1

Note —

When θ is West micrometer screw-readings are +
East — —

For instance	+ 6.54	M. W. means	+ 6.54
	- 6.54		- 5.46
	+ 6.54	M. S. means	+ 5.46
	- 6.54		- 6.54

There is often an uncertainty of a whole revolution especially
in the earlier observations.

Carrington 720.4 Sch. 5.9
782 Sch. 7.5

1655.0
5^h 15^m 59.2
20 24.4

25° 6' 25.0
13 35.7

Car - Schroed.
Dec
+1.7
+0.14

Carrington 438 9.7
445 9.5

us (L)

Carrington 675 Sch. 277 5.2 4 43 24.7 80 56 22.6
641 280 0.8 35 51.1 81 1 44.0

mag (L)

925 1410 Sch. 573 8.3 9 25 24.0 85 8 38.1
928 1414 577 8.5 26 23.3 244.0

Car. 3608 Sch. 1357 6.9 23 24 10.7 85 37 10.2
1363 7.5 27 12.6 45 29.9

369 Sch. 1388 7.1 23 52 49.9 85 53 58.6
1395 0.9 59 37.6 58 52.4 Proper motion

1959phs...123M